

UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

This draft ecological site description is approved for field use and testing for a one year period beginning MM, YYYY.
Additional information and comments on this site should be sent to the Utah State Range Management Specialist.

STATE: Utah

SITE TYPE: Rangeland

ECOLOGICAL SITE NAME: Upland Sand (Basin big sagebrush)

SITE NUMBER: 034XY312UT

MLRA: 034

Original Site Description: Author: JLB GWL

Date: 05/26/1981

Revised Site Description: Author: JLB GWL

Date: 01/06/1994

Approved by: Title: State Range Cons. Signed: Pat Shaver

Date: 06/25/1994

Ecological Site Definition - A distinctive kind of land, with specific physical characteristics, which differs from other kinds of land in its ability to produce a distinctive kind and amount of vegetation, and in its response to management.

A. PHYSICAL CHARACTERISTICS

(description narrative of this particular site)

1. SOILS

Depth: 40->60 inches

Surface Textures: Loamy Sand

Surface Fragments(<=3" % cover, >3" % cover):

Subsurface Textures:

Subsurface Fragments(<=3" % vol, >3" % vol):

Geologic Parent Materials: Alluvium and Eolian from Sandstone

Moisture Regime:

Temperature Regime:

Runoff: Slow

Permeability(min-max): Rapid

Drainage Class(min-max): Excessively Well Drained

Water Erosion Hazard:

Wind Erosion Hazard: High

Electrical Conductivity (EC in mmhos/cm):

Sodium Adsorption Ration (SAR):

Soil Reaction (1:1 water):

Soil Reaction (0.1 M CaCl₂):

pH Range:

Available Water Capacity (inches):

Major Soils Associated With This Site:

Soil Survey Area: 047

Mespun LS 4-15% Moist

Additional information may be found in Section II of the Field Office Technical Guide.

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1. Potential Plant Community Description and Ecological Factors

The dominant aspect of the plant community is basin big sagebrush and needleandthread. The composition by air-dry weight is approximately 50 percent perennial grasses, 10 percent forbs and 40 percent shrubs.

2. Plant Community Composition by Weight and Percentage

Grasses and Grasslike, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Needleandthread	HECO26		135	180	15	20
Indian ricegrass	ACHY		90	135	10	15
Western wheatgrass	PASM		45	90	5	10
Sand dropseed	SPCR	1	9	45	1	5
Muttongrass	POFE	1	9	45	1	5
Giant dropseed	SPGI	1	9	45	1	5
Tall dropseed	SPAS	1	9	45	1	5
Galleta	HIJA	1	9	45	1	5
Blue grama	BOGR2	1	9	45	1	5
Other perennial grasses	PPGG	1	45	90	5	10
Other annual grasses	AAGG	1	45	90	5	10

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Spurred lupine	LUCAC3		9	45	1	5
Scarlet globemallow	SPCO		9	45	1	5
Louisiana wormwood	ARLU	2	9	27	1	3
Western sticktight	LAOC3	2	9	27	1	3
Hedge mustard	SIOF	2	9	27	1	3
Other perennial forbs	PPFF	2	9	45	1	5
Other annual forbs	AAFF	2	9	45	1	5

Shrubs/Vines, %

Common Name	National	Group	Pounds per Acre	% by Weight of
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	Symbol				Total Composition	
			Low	High	Low	High
Basin big sagebrush	ARTRT		90	180	10	20
Rubber rabbitbrush	ERNA10		27	45	3	5
Low rabbitbrush	CHVI8		27	45	3	5
Mormon tea	EPVI		27	45	3	5
Bitterbrush	PUTR2		27	45	3	5
Crispleaf wild buckwheat	ERCO14	3	9	27	1	3
Central pricklypear	OPPO	3	9	27	1	3
Other shrubs	SSSS	3	27	45	3	5

Trees, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High

3. Plant Community Annual Production

At the highest potential similarity index, this site will produce approximately the following amount of air-dry herbage, expressed as pounds/acre:

	Low	High
Favorable Year	1200	1300
Average Year	800	900
Unfavorable Year	600	700

4. Ground Cover and Structure

a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft.)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	30	3	15
Forbs (perennial)	5	2	2
Shrubs	20	4	10
Trees			
Cryptogams			

b. Other

Litter	
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Coarse Fragments	
Bare Ground	

5. Ecological Dynamics of the Site

As ecological condition deteriorates due to overgrazing, perennial grasses decrease while big sagebrush, low rabbitbrush and rubber rabbitbrush increase. When the potential natural plant community is burned, big sagebrush will decrease while pricklypear, low rabbitbrush and rubber rabbitbrush increase. Cheatgrass and broom snakeweed are most likely to invade this site.

Plant Communities & Transitional Pathways

(Show a steady state diagram with influences to move from one steady state to another)

6. Plant Growth Curves

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Percent Growth	0	0	10	30	45	5	5	5	5	0	0	0
Name	PNC											
ID Number	UT3121											
Description	Excellent Condition											

7. Aspect Differences Near MLRA Boundaries

(Give related range sites in MLRA's above and below)

8. Associated Sites Within MLRA

034XY320UT
 Upland Shallow Loam (Black sagebrush)

034XY306UT
 Upland Loam (Basin big sagebrush)

9. Correlated Sites in Other States

(Give site name and number)

D. MAJOR USES OF THIS SITE

1. Livestock

a. Site Factors Influencing Management

This site provides proper grazing for cattle and sheep during fall, winter, and spring.

b. Guide to Forage Quality(Plant preference by season)

Species	Oct-Nov	Dec-Feb	Mar-May	Jun-Sep

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VG = Very Good G = Good F = Fair P = Poor

2. Wildlife

a. Site Factors Influencing Management

This site produces food and cover for wildlife.

b. List of Potential Species Present

Wildlife using this site include jackrabbit, coyote, mule deer, and elk.

This is a short list of the more common species found. Many other species are present as well and migratory birds are present at times.

c. Guide to Forage Preference of Managed Wildlife Species

Wildlife Species →				
Plant Species ↓	Use	Season	Use	Season

Use - A = preferred or desirable
 B = some use, but less important
 C = little use or used occasionally

Season - F = Fall (Oct-Nov)
 W = Winter (Dec-Feb)
 Sp. = Spring (Mar-May)
 Su. = Summer (Jun-Sep)

3. Recreational Uses

Recreation potential includes hiking and hunting.

4. Wood Products

None

5. Other Uses

E. THREATENED AND ENDANGERED SPECIES

1. Plants
2. Animals

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F. MODAL LOCATION AND DOCUMENTATION

State: Utah County:
 Latitude: Longitude:

Modal Soil: Mespun LS Moist 4-15% — mixed, mesic Ustic Torripsamments

Type Location: SE ¼, SE ¼, SW ¼; Section 16, Township 3S, Range 19E SLBM

General Legal Description:

Field Office Site Location

Roosevelt
 Price

Data Collected and References

Sampling Source	Number of Records	Range Similarity Index			
		> 76%	51-75%	26-50%	0-25%
NRCS - ECS - 417					
UTAH - RANGE - 2					
Permanent Transect Location					

Other References